

Title (en)
Storing cryogenic mixtures

Title (de)
Aufbewahrung von Kryogengemischen

Title (fr)
Stockage de mélanges cryogéniques

Publication
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Application
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US 86280797 A 19970523

Abstract (en)
An apparatus (1) is provided for storing a multi-component cryogenic mixture as a liquid (10), in which the mixture contains at least first and second components, the first component being more volatile than the second component. The second component has a bubble point temperature, at atmospheric pressure, lower than that of the first component at a pressure above atmospheric. The inevitable heat leakage into the container (12) for storing the cryogenic mixture causes the cryogenic mixture to vaporise, so that the vapour phase of the mixture is enriched in the first component and the liquid phase in the mixture is enriched in the second component. A conduit (18) communicates between locations of the container (12) situated above and below the head space region (16) of the container (12) so that vapour phase stream flows into the reservoir (20), opened to the atmosphere is provided in communication with the container (12) such that a liquid phase stream, made up of the liquid phase flows into the reservoir (20) and develops an ever increasing second component concentration. As such, the liquid phase of the mixture is able to condense the vapour phase of the mixture within the conduit (18). The resulting liquid will fall back into the container (12) under influence of gravity to stabilise the concentration of the first and second components within the container (12).

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